

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1
Ag 84 Bro
copy 2

817



U. S. DEPT. OF AGRICULTURE
NATIONAL AGRICULTURAL LIBRARY

AFRICAN SWINE FEVER

FEB 5 - 1968

CURRENT SERIAL RECORDS

**AN EXPANDING THREAT
TO AMERICAN HOGS**



AFRICAN SWINE FEVER

AN EXPANDING THREAT TO AMERICAN HOGS

African swine fever is a highly contagious—and usually fatal—virus disease. It is the most deadly of all foreign diseases of hogs. The acute form kills almost all of the hogs that become infected. Other species of animals are not susceptible.

Signs of African swine fever are almost identical to signs of hog cholera. No effective vaccine has been developed for African swine fever and no effective treatment is known.

African swine fever does not affect humans.



In African swine fever, skin may become reddish on ears and snout (above), hams and legs (below). This characteristic color also occurs in hog cholera.

WHERE IT OCCURS

African swine fever has been established for years in eastern and southern Africa.

The disease invaded Portugal in 1957 and moved into Spain 3 years later. Free-ranging hogs quickly spread the disease to community herds. Initially African swine fever was confused with hog cholera. Eradication has been unsuccessful in Spain and Portugal.

In 1964 and 1967, African swine fever spread north into France. An eradication program was successful.

African swine fever was reported on the island of Madeira in 1966. Italy reported its first outbreak in 1967.

The disease has not been diagnosed in the United States or in any other part of the Western Hemisphere. But the expansion of African swine fever into Italy has greatly increased chances of its spread to new areas.

If an outbreak should occur in the United States . . .

If an outbreak should occur in the United States, it is probable that—unless immediate steps were taken to control the disease—African swine fever would be spread rapidly to all sections of the country. It also is probable that most exposed hogs would develop African swine fever, and most infected hogs would die.

Plans for a U.S. emergency eradication program against African swine fever have already been developed. The States and the U.S. Department of Agriculture will begin joint eradication immediately upon confirmation of an outbreak.

SPREAD

African swine fever spreads rapidly, like virulent forms of hog cholera. Infected hogs are a principal source of the disease. The few hogs that recover remain carriers capable of spreading the virus.

In Africa, wild pigs are carriers. Wart hogs and wild bush hogs are reservoirs of infection, although

they show no signs of disease. Recent studies indicate that ticks may play a role in transmitting the disease.

African swine fever is spread by—

- Contaminated garbage, feed, or water.
- Contact between infected and susceptible hogs.
- Carrier animals.
- Contaminated vehicles.
- Contaminated premises.
- Clothing, footwear, equipment.
- Improper disposal of infected carcasses.

Several outbreaks have been traced directly to the feeding of uncooked garbage containing the virus of African swine fever.

SIGNS

The signs of African swine fever and the signs of hog cholera are so similar that it is impossible to tell the difference by looking at sick animals. Early in an outbreak of either disease, signs may go unrecognized until a few hogs have died.

Hogs usually develop African swine fever 5 to 9 days after exposure.

An infected hog first undergoes an abrupt rise in temperature, from normal 102° F. to above 105°. This fever seldom is noticeable, because it usually develops without obvious signs of disease. Occasionally, hogs seem to “burn up” with fever.

In acute African swine fever, hogs ordinarily die 4 to 7 days after the onset of fever. A day or two before death, the temperature falls quickly. Then the hog may show some or all of the following signs:

- Depression.
- Weakness in the hind legs.
- Discolorations—redness or bluish-to-reddish blotches—on ears, snout, tail, fetlocks, and flanks.
- Labored breathing.
- Bloody feces.
- Incoordination.
- Coughing.
- Sticky discharge from the eyes.



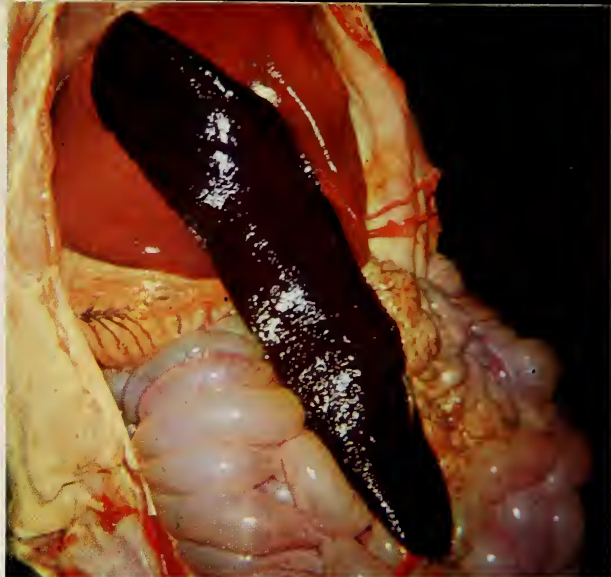
Hogs with African swine fever often retain normal appetites, while hogs with hog cholera usually go off feed and die without regaining their appetites.

New outbreaks—which spread so fast they almost seem to explode—are usually the acute form of African swine fever. If the disease becomes established, a milder or chronic form may develop.

POST MORTEM LESIONS

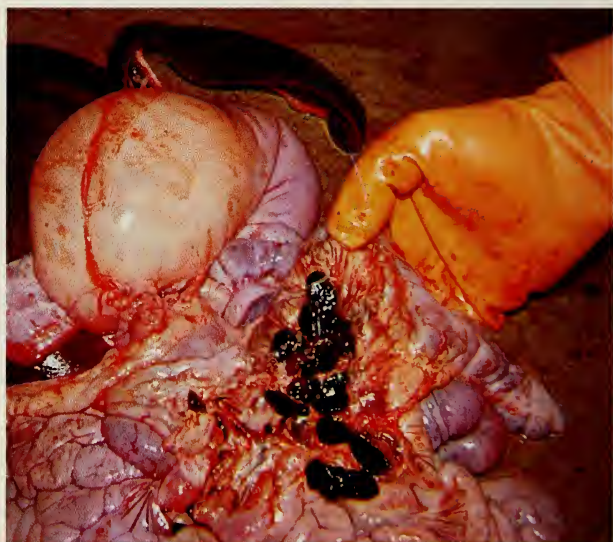
Post mortem lesions of African swine fever and hog cholera are similar. But when the two diseases are compared, lesions of African swine fever seem more dramatic. Most of the body organs are involved.

Post mortems often show spectacular hemorrhages—from small pinpoint of blood to massive areas of damage. These lesions result from the breakdown of small blood vessels and lymph tissues.



Spleen of pig with African swine fever is greatly enlarged and dark—almost black—in color (above).

Mesenteric lymph nodes—normally light-colored—appear as blood clots in African swine fever (below).



Affected organs are usually enlarged and discolored. Lesions of African swine fever may be found in some or all of the following organs:

- **Lymph nodes.**—Varies from pinpoint hemorrhages to the entire node resembling a blood clot.
- **Spleen.**—Several times normal size; filled with blood.

- **Kidney.**—Varies from pinpoint hemorrhages to the entire kidney resembling a blood clot.
- **Heart.**—Hemorrhages in heart muscles.
- **Alimentary tract.**—Swelling, congestion, and free blood.

An excess of watery fluid may be seen around the heart, in the chest, and in the abdominal cavity.

Occasionally, death is sudden and no obvious (gross) lesions are found on post mortem.

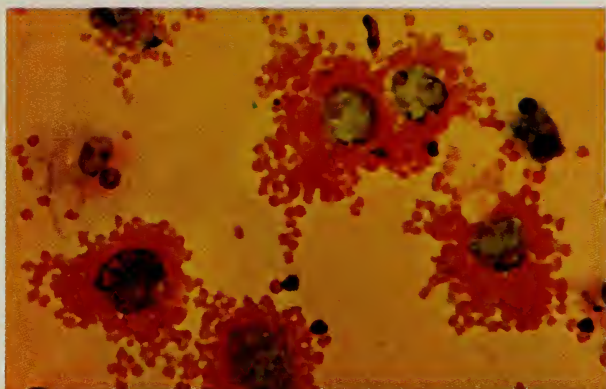
DIAGNOSIS

Although signs of African swine fever and hog cholera are alike, there is one significant difference between the diseases. Hog cholera vaccine protects animals against hog cholera, but hog-cholera-immune swine are susceptible to African swine fever. Therefore, if hogs that have been properly vaccinated against hog cholera develop signs of these diseases—

Report immediately to your veterinarian, State or Federal animal-disease-control officials, or your county agricultural agent.

Every report will be investigated and necessary laboratory tests will be made. If tests confirm either African swine fever or hog cholera, eradication will be started at once.

The earlier the diagnosis of African swine fever, the better the chances for quick eradication.



“Clumping” of red blood cells around infected white cells in test tube proves African swine fever virus is present. This test, developed by USDA scientists employed by Plum Island Animal Disease Laboratory, is used to diagnose the disease quickly.

PREVENTION

The U.S. Department of Agriculture has taken measures to protect our hogs against the introduction of African swine fever. Under our import regulations, no country with African swine fever may send live hogs, uncooked pork, or unsterilized pork products to the United States. Strict inspections and quarantines are conducted at U.S. ports of entry.

WHAT YOU CAN DO

As a livestock producer or worker informed about African swine fever, you can—

- Watch your herds. Be alert to abnormal conditions.
- If any hogs show signs of African swine fever or hog cholera, notify your veterinarian, State or Federal animal-disease-control officials, or your county agricultural agent at once.
- Isolate hogs showing signs of the disease. Do not move them from your premises.
- Restrict movement of all livestock on your premises if you suspect an outbreak.
- Restrict movement of persons, vehicles, and equipment to and from your premises until you are notified of the diagnosis.

This is one of a series of publications designed to acquaint American livestock men with foreign animal diseases and the steps to take if an outbreak is suspected.

If you want more information about foreign animal diseases, contact your local veterinarian, your county agent, or State or Federal animal-disease-control officials.

Prepared by Animal Health Division and
Animal Disease and Parasite Research Division,
Agricultural Research Service

Washington, D.C.

Issued February 1968

For additional copies, send a post card requesting PA-817, "African Swine Fever: An Expanding Threat to American Hogs," to Office of Information, U.S. Department of Agriculture, Washington, D.C. 20250. Include your name, address, ZIP code.